

Case 3051

***Scarus chrysopterus* Bloch & Schneider, 1801 (currently *Sparisoma chrysopterus*; Osteichthyes, Perciformes): proposed conservation of the specific name and designation as the type species of *Sparisoma* Swainson, 1839**

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Abstract. The main purpose of this application is to conserve the specific name of *Sparisoma chrysopterus* (Bloch & Schneider, 1801) for the Redtail Parrotfish of the Caribbean and tropical Western Atlantic. An earlier specific name, that of *Sparus abildgaardii* Bloch, 1791, has been treated as a junior synonym of *Sparisoma viride* (Bonnaterre, 1788), the Stoplight Parrotfish, but it is now known to refer to the initial phase (male or female) of *S. chrysopterus*. It is also proposed that *S. chrysopterus* be designated as the type species of *Sparisoma* Swainson, 1839 in place of the nominal species *Sparus abildgaardii*.

Keywords. Nomenclature; taxonomy; Osteichthyes; Perciformes; SCARIDAE; parrotfishes; *Sparisoma*; *Sparisoma abildgaardii*; *Sparisoma chrysopterus*; *Sparisoma viride*; Caribbean; Western Atlantic.

1. Bloch (1791, p. 22, pl. 259) described and illustrated in color a specimen of a scarid fish from St Croix, Virgin Islands, and named it *Sparus abildgaardii*. The description and figure are of a moderately elongate, yellowish parrotfish with a lunate caudal fin; the dried skin (337mm SL) is preserved as specimen ZMU 8584 in the Museum für Naturkunde der Humboldt Universität in Berlin.

2. Bloch & Schneider (1801, p. 286, pl. 57) described and illustrated *Scarus chrysopterus* from 'mare Americanum'. The illustration shows a moderately elongate body and lunate caudal fin: this and the color description (body green, fins orange, the caudal orange in the middle and laterally green) refer to a terminal male of the species which has long been known as *Sparisoma chrysopterus* (Bloch & Schneider, 1801) and, in English, the Redtail Parrotfish.

3. Swainson (1839, p. 227) briefly described the new nominal genus *Sparisoma* and cited '*Sparus Abildgardii* [sic] Bloch, pl. 259' as the only species. He noted that 'Cuvier terms this singular fish a *Scarus* and Bloch a *Sparus*', but in the absence of any other statements one has to assume that the specific name was used in Bloch's original sense.

4. Valenciennes (in Cuvier & Valenciennes, [1840], p. 175) applied the name *Scarus abildgaardii* to a scarid from St Thomas, Virgin Islands, where it was known as 'red-fish'; he said that this common name was well justified by the description of the color (when fresh) that accompanied the specimen, and that Bloch (1791) must have had 'un individu décoloré'. Although the description by Valenciennes did not match the original one by Bloch, later authors (such as Jordan & Evermann, 1898, p. 1635; Evermann & Marsh, 1900, p. 239, pl. 30; Meek & Hildebrand, 1925, p. 748; Townsend, 1929, pl. 19; Longley & Hildebrand, 1940, p. 207, pls. 17, 28) used the name *Sparisoma abildgaardii* (Bloch, 1791) for the red parrotfish described by Valenciennes under the name *Scarus abildgaardii*.

5. Schultz (1958) reviewed the family SCARIDAE. Like Valenciennes and the other authors listed in para. 4 above, he regarded *Sparisoma abildgaardii* as a valid species; he did not examine Bloch's specimen (para. 1 above), and diagnosed *S. abildgaardii* principally on color (pectoral base same color as remainder of fin; six vertical rows of white spots on body; belly blood red; posterior margin of gill cover black (reddish brown when alive); caudal fin red except basally). Schultz was aware of sexual dimorphism in the SCARIDAE from the paper by Brock & Yamaguchi (1954) on the Hawaiian *Chlorurus perspicillatus* (Steindachner, 1839), but he did not realize how extensive this is in the family; nor did he know of the protogynous hermaphroditism of scarids which was first shown by Randall & Randall (1963) for *Sparisoma rubripinne* (Valenciennes, [1840]).

6. Winn & Bardach (1960) concluded that *S. abildgaardii*, as used by authors, did not refer to a valid species, and wrote '*Sparisoma abildgaardii* [sic] (Bloch) (female and immature) appears to be a synonym of *Sparisoma viride* (Bonnaterre) (male).' Others have agreed with Winn & Bardach, such as Böhlke & Chaplin (1968), Randall (1968) and Schultz (1969, in his second major paper on scarids) and numerous more recent workers. It is now clear that the red parrotfish called *Scarus* or *Sparisoma abildgaardii* by Valenciennes and the other authors listed in para. 4 above, together with Schultz (1958), is the initial phase (which may be male or female) of *Sparisoma viride* (Bonnaterre, 1788, p. 96), known in English as the Stoplight Parrotfish.

7. While studying the parrotfishes of Brazil, the first author (R.L.M.) of the present application examined the original descriptions of western Atlantic species. Bloch's (1791) original description and illustration of *Sparus abildgaardii* seemed much more like *Sparisoma chrysopterum* (see para. 2 above) than the deeper-bodied 'abildgaardii' initial phase of *S. viride*. The second author (J.E.R.) agreed, and at our request H.-J. Paepke examined the skin of Bloch's specimen in Berlin (see para. 1 above) and supplied a photograph. We now conclude that *Sparus abildgaardii* Bloch, 1791 (as originally published and represented by the holotype) is an earlier synonym of *Sparisoma chrysopterum* (Bloch & Schneider, 1801), and not a later synonym of *S. viride* (Bonnaterre, 1788) as has been supposed by many authors since Winn & Bardach (1960).

8. The specific name *abildgaardii* Bloch, 1791 has apparently not been used in its original taxonomic sense (i.e. that of *S. chrysopterum*) since Swainson (1839) established *Sparisoma*. After Valenciennes ([1840]), *abildgaardii* was applied to what is now known to be the initial phase of *Sparisoma viride*, and following the recognition of this fact by Winn & Bardach (1960; see para. 6 above) the name has dropped out of use. In contrast, the name *Sparisoma chrysopterum* (Bloch & Schneider, 1801) has

always been correctly used. It would be very confusing to now replace *S. chrysopterus* by *S. abildgaardi*, and there is a prima facie case for the suppression of *abildgaardi*.

9. As noted in para. 3 above, the type species of *Sparisoma* Swainson, 1839 is, by monotypy, *Sparus abildgaardi* Bloch, 1791. Since this name was consistently misapplied and has now dropped out of use, and its suppression is therefore now proposed, we suggest that the type species should be denoted by the valid name of the taxon on which Swainson must be assumed to have based the genus. An alternative course would be to designate the congeneric *Scarus viridis* Bonnaterre, 1788 as the type species, but we see no reason for preferring this.

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers:
 - (a) to suppress the specific name *abildgaardi* Bloch, 1791, as published in the binomen *Sparus abildgaardi*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
 - (b) to set aside all previous fixations of type species for the nominal genus *Sparisoma* Swainson, 1791, and to designate *Scarus chrysopterus* Bloch & Schneider, 1801 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the name *Sparisoma* Swainson, 1839 (gender: neuter), type species by designation in (1)(b) above *Scarus chrysopterus* Bloch & Schneider, 1801;
- (3) to place on the Official List of Specific Names in Zoology the name *chrysopterus* Bloch & Schneider, 1801, as published in the binomen *Scarus chrysopterus* (specific name of the type species of *Sparisoma* Swainson, 1839);
- (4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *abildgaardi* Bloch, 1791, as published in the binomen *Sparus abildgaardi* and as suppressed in (1)(a) above.

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